

# **EPA Superfund Explanation of Significant Differences:**

**NORTH PENN - AREA 1  
EPA ID: PAD096834494  
OU 01  
SOUDERTON, PA  
09/24/1998**

EXPLANATION OF SIGNIFICANT DIFFERENCES  
NORTH PENN AREA 1 SUPERFUND SITE

I. INTRODUCTION

Site Name: North Penn Area 1 Superfund Site

Site Location: Souderton, Montgomery County, Pennsylvania

Lead Agency: U.S. Environmental Protection Agency,  
Region III ("EPA" or "the Agency")

Support Agency: Pennsylvania Department of Environmental Protection ("PADEP")

Statement of Purpose

A Record of Decision ("ROD") for the North Penn Area 1 was signed on September 30, 1994. That ROD addressed primarily contamination of soil, but also included an interim remedial action to address ground water contamination. This Explanation of Significant Differences ("ESD") is issued in accordance with Section 117 of the Comprehensive Environmental Response, Compensation and Liability Act, as amended, ("CERCLA."), 42 U.S.C. § 9617(c), and 40 C.F.R. § 300.435(c)(2)(I). This ESD has been prepared to provide the public with an explanation of the nature of the change made with regard to the interim remedial action for the contaminated ground water, and to demonstrate that the revised remedy complies with the statutory requirements of CERCLA § 121, 42 U.S.C. § 9621. The selected remedy for contaminated soil remains unchanged.

II. SUMMARY OF THE SITE HISTORY AND SELECTED REMEDY

The North Penn Area 1 Site is located in Souderton, Montgomery County, Pennsylvania, and is one of 12 Sites identified in the North Penn area on the basis of contamination of ground water by volatile organic compounds ("VOCs") in production wells. The contamination at the Area 1 Site was first noted in 1979 in North Penn Water Authority (NPWA) well S-9. The well was immediately taken out of service because tetrachloroethylene levels in the range of 10-13 ppb were found in the ground water. (Tetrachloroethylene is also known as perchloroethene, which is abbreviated as PCE. The term PCE will be used in this document when referring to this compound.) On the basis of this contamination, the site was proposed for the National Priorities List ("NPL") in January 1987, and was placed on the NPL in March 1989.

After the contamination was identified, Potentially Responsible Party (PRP) searches by EPA identified five facilities in the area that may have contributed to the ground water contamination. These facilities and the ground water contamination were evaluated in the Remedial Investigation/Feasibility Study ("RI/FS"). The results of the sampling work done during the RI/FS revealed soil contamination at three of the five properties. These three properties are: Gentle Cleaners, Granite Knitting Mills (GKM) and Parkside Apartments. On September 30, 1994, EPA issued a ROD which included the remedial action for contaminated soil and an interim remedial action for contaminated ground water. An interim action for ground water was selected because enough information about groundwater contamination was not available at that time. The selected remedy was excavation of contaminated soils at each of the three properties with PCE contamination and installation of an extraction system to extract water from the upper interval (0-28 ft) of a well at the GKM property and the entire (0-270 ft) NPWA well S-9 (See Figure 1 for property and well locations). The extracted water was to be combined and treated in one treatment system. An option to treatment is the direct discharge of the extracted water to a publicly owned sewage treatment plant.

A remedial design was approved by EPA on September 12, 1996. As part of the remedial design, soil sampling was conducted at the three properties of concern to determine the volume of soil that would need to be removed. Levels of contamination in soils at the Parkside Apartments property were below the remediation goals established in the ROD. Therefore, excavation of soils was not required at this property, only at the Granite Knitting Mills and the Gentle Cleaners property. Also, as part of the remedial design activities, three new wells were installed and sampled. Well S-9 was also sampled at that time. Since sampling results revealed low levels of contamination, it was determined that extracted water would be discharged to a publicly owned sewage treatment plant instead of treating it.

On October 29, 1997 EPA issued an Explanation of Significant Differences (ESD) for the site. The purpose of the ESD was to document EPA's decision not to pump well S-9. In addition, although not a significant change, the ESD documented EPA's decision that excavation at the Parkside Apartments was not necessary because soil contamination levels were below the cleanup goals. The decision not to pump well S-9 was based on the low PCE levels detected in this well during the RI/FS and the remedial design sampling

activities, as well as, a change in the Commonwealth of Pennsylvania's remediation standards. At the time the ROD was prepared, the Commonwealth of Pennsylvania's remediation standards required that ground water be cleaned up to background levels, i.e. those levels of each contaminant that would be found in the area in the absence of a source of contamination. Subsequent to the issuance of the ROD, the Commonwealth of Pennsylvania signed into law the Land Recycling and Remediation Standards Act (ACT 2 of 1995). The Commonwealth of Pennsylvania, Department of Environmental Protection has identified Act 2 as an ARAR. EPA has determined that Act 2 does not, under the circumstances at the Site, impose any requirements that are more stringent than the federal standards. Based on this change in Pennsylvania's remediation standards, EPA determined that Maximum Contaminant levels (MCLs) will be used instead of the background levels. The MCLs are the maximum permissible concentrations of a chemical in drinking water as established in the Safe Drinking Water Act. Since contamination levels at well S-9 are expected to be below the MCL, EPA determined that pumping of well S-9 was not necessary.

Construction of the remedial action, as outlined in the ROD, with the changes included in the October 29, 1997 ESD, was completed on July 13, 1998. A total of 482 tons were excavated from the GKM and the Gentle Cleaners properties. Also, an extraction system was installed at the GKM well which consisted of an extraction pump and conveyance piping, with direct discharge to the sanitary sewer.

### III DESCRIPTION OF SIGNIFICANT DIFFERENCES AND THE BASIS FOR THOSE DIFFERENCES

EPA has determined that the interim remedy selected for OU2-groundwater should be the final remedy for contaminated groundwater. This change is a significant change as defined in 40 C.F.R. § 300.435(c)(2)(I), the National Oil and Hazardous Substances Pollution Contingency Plan ("NCP"), therefore, preparation of this ESD is required. A ROD Amendment is not required because the overall goal of the remedy is the same, that is; to eliminate the potential exposure risk from the contaminated soil, to eliminate the source of contamination migrating to ground water, and to prevent the spread of contaminated ground water.

When the ROD was prepared, the remedy for contaminated ground water was an interim action because there was not enough information about the ground water contamination to make a determination for a final remedial action. Also, since there was a documented PCE spill at the Gentle Cleaners property in the early 1970s, there was a possibility that Dense Non-Aqueous Phase Liquids (DNAPLs) were introduced to the subsurface. During the remedial design, three new wells were installed—well NPA1-S1, NPA1-S2, and NPA1-D3 (See Figure 1). Sampling of these wells during the remedial design revealed the highest concentration of contamination at the NPA1-S1 well (32 ppb of PCE, 10 ppb of 1,2-Dichloroethene, and 5 ppb of 1,1,1-Trichloroethane). Well NPA1-S2 showed only PCE at a concentration of 6 ppb. NPA1-D3 had no detectable levels of contamination. These data shows that the levels of contamination in the wells were low and that there was not evidence of the presence of DNAPLs. Based on these results, the extraction system constructed should be sufficient to remediate the contaminated ground water. In addition, as indicated above, MCLs instead of background levels will be used as cleanup goals. MCLs are higher than background levels and therefore easier to achieve. Also, the source of ground water contamination (contaminated soil) was removed and the levels of contamination are not expected to increase.

EPA will monitor the levels of contamination by conducting periodic sampling using the monitoring program established in the ROD. This monitoring program requires sampling and analysis of the downgradient monitoring wells installed during the remedial design, and the GKM and S-9 wells. Since hazardous substance will remain at the Site above health-based levels (MCLs are health-based levels), pursuant to CERCLA section 121(c) and as provided in OSWER Directive 9355.7-02, Structure and Components of Five-Year Reviews, May 23, 1991, and OSWER Directive 9355.7-02A, Supplemental Five-Year Review Guidance, July 26, 1994, EPA must conduct policy five-year reviews until ground water cleanup levels (MCLs) have been attained. The data collected during the monitoring program will be used to evaluate the performance of the extraction system.

### IV. PUBLIC PARTICIPATION

The ESD and the information upon which it is based will be included in the Administrative Record file and the information repository for this Site. The Administrative Record is available for public review at the locations listed below:

U.S. EPA Region III  
1650 Arch Street  
Philadelphia, PA 19103-2029  
Hours: Monday - Friday, 9:00 a.m. - 4:00 p.m.

Indian Valley Public Library  
100 East Church Avenue  
Telford, PA 18969  
215-723-9109

V. SUPPORT AGENCY COMMENTS

EPA has notified the PADEP of the changes proposed in this ESD in accordance with 40 C.F.R. ° 300.435(c)(2) and PADEP has verbally concurred with the ESD. PADEP has informed EPA that it will send a concurrence letter to EPA soon.

VI. AFFIRMATION OF THE STATUTORY DETERMINATIONS

EPA has determined that the revised remedy complies with the statutory requirements of CERCLA 121,42 U.S.C. ° 9621. Considering the new information that has been developed and the changes that have been made to the selected remedy, EPA believes that the remedy remains protective of human health and the environment, and complies with Section 121(d) of CERCLA, 42 U.S.C. ° 9621(d) and EPA's off-Site Policy and is cost-effective. In addition, the revised remedy utilizes permanent solutions and alternative treatment technologies to the maximum extent practicable for this Site.

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